


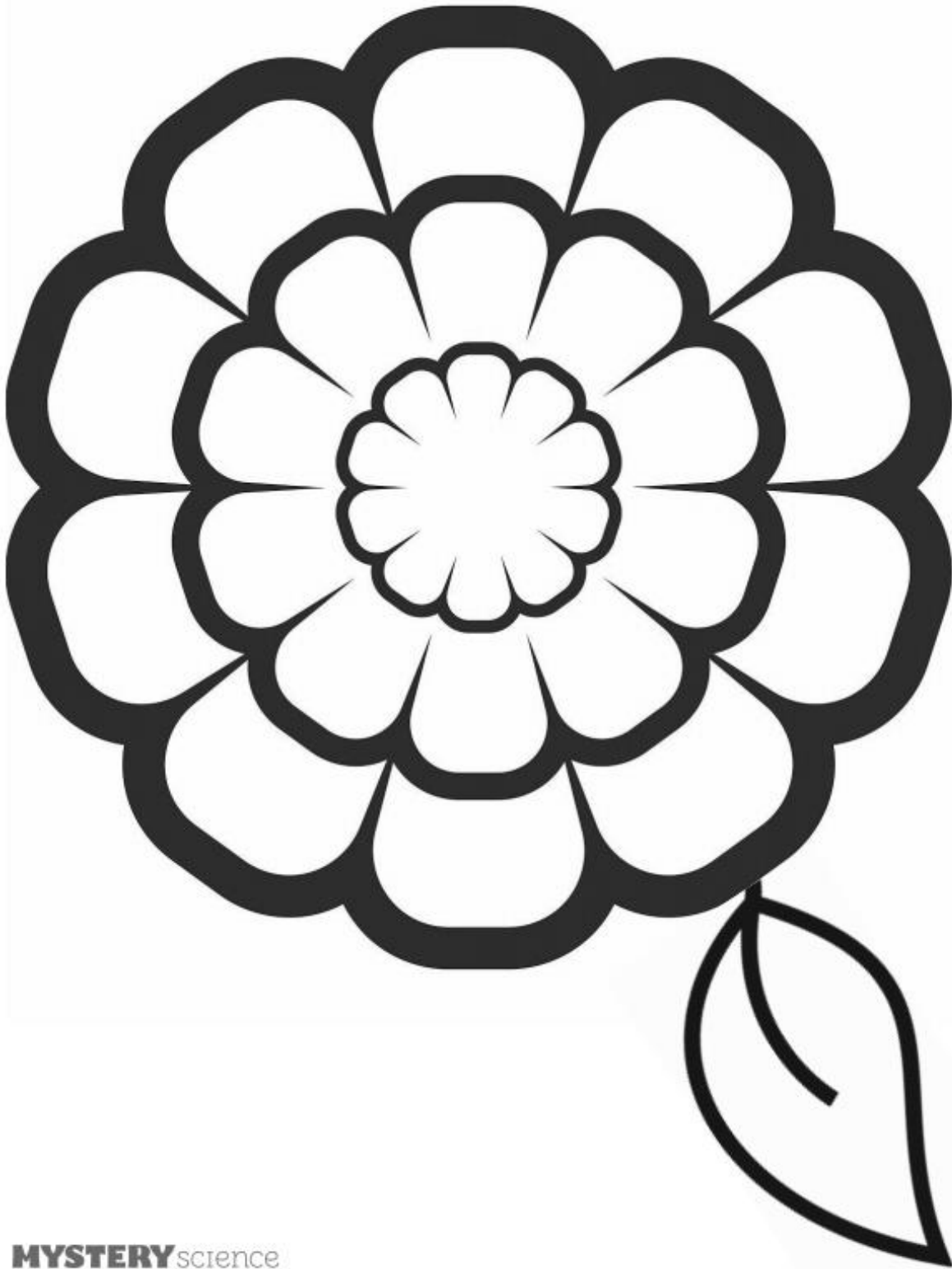
EDU 400 – Science – 1/28/2021

Grade: First Grade		Subject: Science	
Materials: - Tissue Paper (various colors) - Press n Seal - 14 Flower Templates		Technology Needed:	
Instructional Strategies: <input checked="" type="checkbox"/> <u>Direct instruction</u> <input type="checkbox"/> Peer teaching/collaboration/cooperative learning <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input checked="" type="checkbox"/> <u>Visuals</u> <input type="checkbox"/> Learning Centers <input type="checkbox"/> Graphic organizers <input type="checkbox"/> Lecture <input type="checkbox"/> PBL <input type="checkbox"/> Technology integration <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Other (list) <input type="checkbox"/> Modeling		Guided Practices and Concrete Application: <input type="checkbox"/> Large group activity <input checked="" type="checkbox"/> <u>Hands-on</u> <input checked="" type="checkbox"/> <u>Independent activity</u> <input type="checkbox"/> Technology integration <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Imitation/Repeat/Mimic <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain:	
Standard(s): 1-PS4-3 – Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.		Differentiation: Below Proficiency: Students who are below proficiency will receive additional assistance from a peer or teacher. Above Proficiency: Students who are above proficiency and able to complete their project before their peers will have the option to either create another ‘stained glass window’ or help a friend finish theirs. Approaching/Emerging Proficiency: Students who are approaching proficiency will be challenged by this project but will ultimately be able to be successful. Modalities/Learning Preferences: <ul style="list-style-type: none"> • Visual: Students will create a visual representation of how a beam of light passes through different materials in different ways. • Auditory: Directions and explanation of concepts will all be done verbally. • Kinesthetic: Students will have the opportunity to move around their desks while they complete their projects. • Tactile: Students are creating a physical product with their hands. 	
Objective(s): - By the end of the lesson, students will understand the difference between how light passes through different materials through their own exploration and analysis of materials and light. Bloom’s Taxonomy Cognitive Level: - Remembering – Understanding – Applying – Analyzing -			
Classroom Management (grouping(s), movement/transitions, etc.): - Students will be partnered with a peer who sits close to them to minimize transition time from group work to partner work. - Come back to me in 5 – 4 – 3 – 2 – 1. - 1 – 2 – 3 Eyes on Me (1 – 2 Eyes on You). - At the end of science, we move on to specials which means students need to prep their area, backpack, and snow gear so they can be ready to go home right after specials end.		Behavior Expectations (systems, strategies, procedures specific to the lesson, rules, and expectations, etc.): - Students are expected to raise their hand in order to answer questions. Blurred answers will not be acknowledged. - Voice levels of 0 are expected when the teacher or a peer is speaking.	
Minutes	Procedures		
5	Set-up/Prep: - Cut tissue paper up into small squares and strips. Divide these up into 13 paper cups. - Print out 14 flower templates. - Have the press n seal ready to be distributed to students.		
3	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) - What would happen if there were no see-through materials like glass? How would our lives be different? - I want you to think about this question for a few seconds. Now turn to a friend next to you and discuss what each of you think would be different in our lives if there were no see-through materials (do this for about 30 seconds). When you are done discussing with your friend, I need you to find your seat and show me that you are ready to keep learning. What are some ways our lives would be different if there were no see-through materials? (call on 3-4 students)		

5	<p>Explain: (concepts, procedures, vocabulary, etc.)</p> <ul style="list-style-type: none"> - Some materials are see-through (or clear/transparent), some materials are kind of see through (or translucent), and some are not see-through (or opaque). Glass is an example of a see-through material. Tissue paper and stained-glass windows are examples of translucent material. - Today we will be making a stained-glass window using press n seal, a flower template, and tissue paper. (demonstrate how to press tissue paper bits into press and seal on top of our flower template) - We all have a flower template and a cup of tissue paper pieces. I will bring you your piece of press and seal and lay it on top of your flower template. Remember that the more you touch the sticky parts, the less sticky they get and the less they will want to stay on the window.
15	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <ul style="list-style-type: none"> - The first thing we need to do is pick a piece of tissue paper, write our name on it, and then stick it (name down) on a side or corner of our press and seal. - Now that we have all of our supplies, we can start to create our flowers. - As we are creating, we can be thinking about how we think the light will look when it shines through our stained-glass windows. - As students complete their windows, they will be put up in the classroom window. If they finish before our time is done, they can help a peer finish their window or color their flower templates.
2	<p>Review (wrap up and transition to next activity):</p> <ul style="list-style-type: none"> - Now that we all have a 'stained glass window' on our classroom window, what do we notice about how the light shines through our windows? Do we see how where there is no tissue paper, a lot of light comes through. Where there is one layer of tissue paper, the light that shines through is colored. Where there are two layers of tissue paper, it is darker, and less light is able to shine through. If we stacked enough pieces of tissue paper together, no light would be able to shine through.
<p>Formative Assessment: (linked to objectives, during learning) Progress monitoring throughout lesson (how can you document your student's learning?)</p> <ul style="list-style-type: none"> - As you walk around while students are working on their stained-glass windows, are they able to explain if their windows will be see through or only kind of see through? 	<p>Summative Assessment (linked back to objectives, END of learning)</p> <ul style="list-style-type: none"> - Are students able to successfully complete the assessment found at the end of this lesson plan?
<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p> <p>I was very happy with how this lesson went. Despite it taking place after 2:00 pm (the time when the first graders begin to markedly lose their ability to focus) students were engaged, focused, and actively participating in this lesson. Here are the stained-glass windows that the students created during this lesson. They stayed up on the windows for over a full month before they began to fold over and fall off. The students were very impressed that their creations actually stuck to the window. Some students who finished their windows sooner were content to color their templates while others sat turned in their seats admiring their and their peers' stained-glass windows.</p>  <p>Something interesting I noticed about the students' creations was the presence of some sort of pattern in each one. While a few (ie. the one in the far-left top corner) look jumbled together with little thought, as you look closer you can notice that the student created patches of color where there are at least two same-colored pieces of tissue paper next to each other. Some students presented more obvious patterns by alternating colors or by orientating the pieces of tissue paper in similar ways. Overall, the classroom teacher Ms. Thompson and I were very impressed by the level of work students put into this project.</p> <p>One change that I would like to make in future teachings of this lesson would be to provide more template options in addition to the flowers. This would be a simple way to incorporate some student choice in the lesson and increase engagement and participation for students who may not want to make a flower. Depending upon what topics are being covered in class, the templates provided could follow that theme, they could correspond to an upcoming holiday, or they could be based upon common interests of the students in the classroom.</p>	

Another change that could be made to enrich this lesson would be to integrate math in it. In first grade, students are learning about different shapes, how to identify shapes based on their attributes, how to create the different shapes themselves, and how to partition circles and rectangles into equal parts. Instead of providing students with precut tissue paper like I did, students could be tasked with cutting out their own pieces of tissue paper. Students could be provided foam shape templates that they could use to trace the shapes onto the tissue paper. Not only would this be a great way for students to explore shapes, but it would also cut down on the necessary prep time for this lesson and it would give students an opportunity to work on their fine motor skills (by cutting with a scissor). It would increase the amount of time needed to complete this lesson, but because it would be incorporating two subjects instead of just one, I think that would be more than okay. Some precut tissue paper shapes could be provided in addition to the shapes the students cut out just to ensure that there are enough to create each student's window.

Flower Template

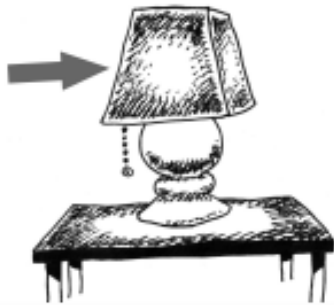


MYSTERYscience

Lights & Sounds | Mystery 3

Name: _____

1. Draw a line to match the picture to the word.



transparent
(see-through)



translucent
(kind of see-through)



opaque
(not see-through)

2. If there were no transparent materials...

